Merchant & Gould P.C. Inventor: MELDAL Docket No.: 11225.13US01

IMENSIONAL UNICHEMO PROTECTION (UCP) IN ORGA

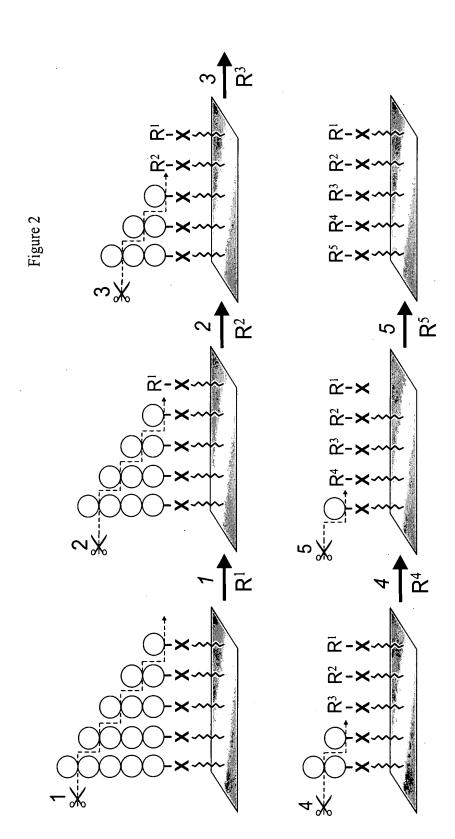
Attornes The: RONALD A. DAIGNAULT
Phone No.: (612) 332-5300 Express Mail Label No.: EL815539513US
Sheet I of 6

R' = Alloc protecting group

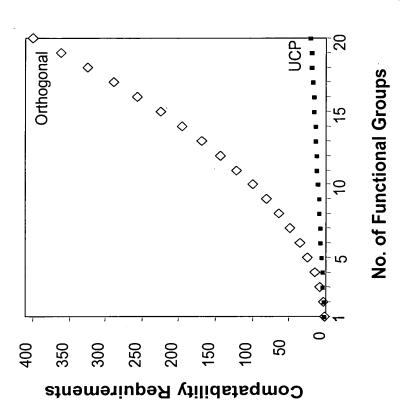
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R¹⁻⁵ = Diversity elements X = Any functional group = Protecting group unit



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Figure 4

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A. Example of Protecting Group

B. Example of Deprotection Chemistry

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Figure 5

 $C_{70}H_{94}N_{14}O_{15}S$

Exact Mass: 1402.67

C, 59.90; H, 6.75; N, 13.97; O, 17.10; S, 2.28

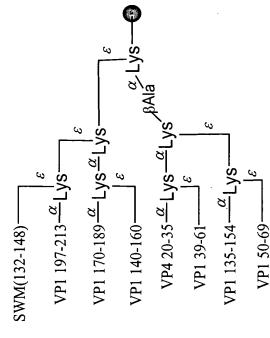
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1. UCP deprotection step 2. Derivatizxation with glyoxalic acid

ω

UCP_{n=5} \(\alpha\)_Lys

UCP_{n=6}-

 $UCP_{n=8} \frac{\alpha}{m} L_{ys}$

4. Fmoc capping of peptide 3. Chemoselective ligation with antigenic peptide

ω

 $UCP_{n=3}$

UCP_{n=4}.

 $UCP_{n=2}$

REPEATED CYCLE

= photolabile linker and resin

Example Procedure for N-terminally Derivatizing Peptide Antigens

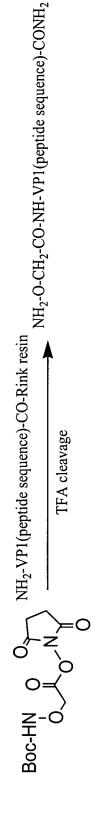


Figure 6